

REMARKS

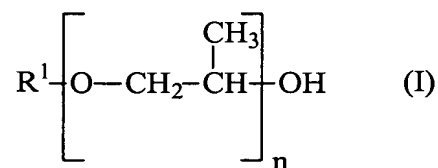
Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

Applicants wish to thank the Examiner for the helpful discussion on December 7, 2006. The following is intended to expand upon this discussion. Newly added Claims 25 and 26 were discussed.

The present invention is based on the surprising finding that a sufficient intake system cleaning effect can be observed by using an intake system cleaning additive **consisting of** one single component, i.e. the polyether component of formula (I) (**option (a)** of Claim 14) or by using a binary mixture of intake system cleaning additives consisting of the polyether component of formula (I) and the polyalkylamine component of formula (II) (**option (b)** of Claim 14).

The present invention as set forth in **Claim 14** relates to a method of improving the intake system cleaning effect of a fuel composition for internal combustion engines, the method consisting of:

(a) providing the fuel composition with an effective amount of (i) a propoxylate additive of formula I



wherein

n is an integer of from 14-17, and

R¹ is straight-chain or branched C₈-C₁₈-alkyl or C₈-C₁₈-alkenyl;

or

(b) providing the fuel composition with an effective amount of (i) a propoxylate additive of formula I and with (ii) at least one detergent additive, selected from a polyalkylamine additive of the formula II



where R^2 is a straight-chain or branched polyalkyl radical having a number average molecular weight of from about 500 to about 5000.

According to the present invention, it is sufficient to supplement the fuel either with a propoxylate additive of formula I (supported by the experimental evidence of table 1 on page 14 of the application text) or to supplement the fuel with a combination of propoxylate of formula I and detergent additive of formula 11 as evidenced by the experimental results summarized in table 2 on page 15 of the application text.

EP 704519 (US 6,579,329) fails to disclose or suggest method of improving the intake system cleaning effect of a fuel composition for internal combustion engines, as claimed.

While EP 704519 discloses in column 3, line 21, the use of tridecanol as starter alcohol of the polyether component, EP 704519 nevertheless discloses **ternary mixtures of individual additives including (A) an amine component, (B) a hydrocarbon polymer and (C) a carrier oil.**

EP 704519 does not disclose a single component or a binary mixture.

EP 704519 explicitly discloses a ternary additive composition comprising an amine component (A), a carbohydrate polymer (B) and a carrier oil (C) in order to obtain a sufficient intake cleaning effect (see in particular the table, summarizing the experimental results of EP 704519). Moreover, intake system cleaning effects comparable to those observed according to the present invention (showing an average intake valve deposit value around 10 : 20 mg/valve) can be obtained according to EP 704519 only with very specific additive mixtures (see in particular examples 6 and 7 of EP 704519). According to said

examples, a specific combination of carrier oils (component C as such consisting of a mixture of polyether and ester component) was used in order to reduce the average valve deposit to a level in the range of 10 to 20 mg/valve. Moreover, from a comparison of the entire set of experimental data provided in said prior art document a person of ordinary skill will deduce the technical teaching that additive mixtures wherein the carbohydrate polymer component (B) is missing (see comparative examples 1, 2 and 3) provides inferior test results. Therefore, starting from EP 704519 a person skilled in the art would not at all be motivated to use either specific polyether components alone or specific combinations of polyether and polyalkyl amine for improving the intake system cleaning effect of a fuel composition for internal combustion engines.

Further, Applicants disagree with the Examiner's statement that Dr. Schwahn's Declaration is not commensurate in scope with the claims. The three sets of data as presented in the graphical illustration attached to Dr. Schwahn's Declaration of September 1, 2005 clearly show that additive systems according to the present invention show a significant improved effect when applying a polypropoxylate component of the present invention having a PO chain length in the claimed range of around 14 to 17. This improved effect is illustrated for the two additive systems of the present invention, i.e. polypropoxylate alone (a set of data designated "tridecanol Nx10-30PO from patent" as well as for an additive system comprising polyisobutyl amine and tridecanol W13-19PO (designated additive with "tridecanol Nx13-19PO" in said graphical illustration).

The graphical illustrations clearly show that unexpected optimum results are obtained for propoxylate components comprising 15 propylene oxide units. Moreover, it is shown that polypropoxylates with significantly less (i.e. 10 or significantly more i.e. 20, 25 or 30) propylene oxide moieties show significantly inferior results. The same applies to the chain length of residue R¹ in formula 1 of the present invention.

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Regarding new Claim 27, as illustrated by the Examples, the claimed amount of additive is useful to reduce the intake valve deposits more or less completely, which is surprising in view of the data presented by EP 704519.

Therefore, the rejection of Claims 14, 16, 17 and 19-24 under 35 U.S.C. § 102(b) as anticipated by EP 704519 (with Thomas (US 6,579,329) as the English translation) is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

The MPEP instructs the Examiner to withdraw the provisional obviousness-type double patenting rejection of Claims 14, 16, 17 and 19-24 over Claims 1-7, 9, 10 and 12-13 of copending application Serial No. 10/505,767, if it is the only issue remaining in one case and convert the provisional rejection in the other application to a double patenting rejection. MPEP 822.01.


This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220


Kirsten A. Grueneberg, Ph.D.
Registration No.: 47,297